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ERICSSON INC. 6300 LEGACY DRIVE M/S EVR 1-C-11 PLANO, TX 75024			EXAMINER ELPENORD, CANDAL	
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**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

### Office Action Summary

**Application No.**

10/521,837

**Applicant(s)**

WAGER ET AL.

**Examiner**

CANDAL ELPENORD

**Art Unit**

2616

**Period for Reply** -- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 25 January 2008.
- 2a) ☒ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-22 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-22 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 19 January 2007 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-8500)
- 4) ☐ Interview Summary (PTO-413)
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_
- Paper No(s)/Mail Date 19 January 2005, 03 November 2006



***Response to Arguments***

1. Applicant's arguments with respect to claims 1-22 have been considered but are moot in view of the new ground(s) of rejection.

***Claim Rejections - 35 USC § 103***

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

4. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

5. **Claims 1-2, 5-7, 9-11, 14-16, 19, 22** are rejected under 35 U.S.C. 103(a) as being unpatentable over Ludwig et al (EP 0948168 A1) in view of Chou et al (US 2003/0018796 A1).

**Regarding claim 1**, Ludwig et al. discloses a method for selecting a window size ("determining control window", recited in column 7-8, lines 54-60/ "calculated window size", recited in column 7, lines 48-53) for a packet switched connection ("packet exchange connection", recited in abstract, lines 1-5) between a sending party (Fig. 7, "sender 300") and a receiving party (Fig. 7, "receiver 302") wherein the sending party ("sender determines control flow", recited in abstract, lines 5-13) uses a window based congestion control mechanism for avoiding or handling congestion ("flow control", recited in abstract, lines 9-13) on a communication path used for the connection, a window size ("window, acknowledgement message", recited in column 1-2, lines 58 and lines 1-12) defining the maximum number of data packets that can be sent by the sending party before an acknowledgement of the reception of a packet is received by the sending party comprising the steps of:

(a) retrieving information about a bit rate ("determined bandwidth link", recited in column 14, lines 22-29) of a link belonging to the communication path across which the connection between the parties (Fig. 7, sender 300 and receiver 302) is set up,

(b) retrieving information about an estimation of a round trip time ("value characteristic of RTT", recited in column 14, lines 34-41) on the connection between the parties (Fig. 7, sender 300 and receiver 302),

(c) determining an estimation of a pipe capacity ("calculation of flow control window", recited in column 16, lines 1-6) for the connection between the parties (Fig. 7, sender 300 and receiver 302) according to the retrieved bit rate and the round trip time of the connection ("RTT" recited in column 14, lines 34-41),

(d) determining an upper threshold value ("bottleneck window as the control window"-traffic is regulated according to it, recited in column 16, lines 12-19) for the window size based on the pipe capacity ("determined bandwidth value is used as the control window", recited in col. 16, lines 1-24) and

(e) selecting a window size ("chosen control window" recited in column 16, lines 19-24), wherein the window size ("minimum advertised", recited in column 16, lines 22-23) is above zero and below or equal to the upper threshold value ("advertised window will be below the maximum input of receiver buffer).

**Regarding claim 2**, Ludwig et al. discloses the method ("determining control window", recited in column 7-8, lines 54-60/ "calculated window size", recited in column 7, lines 48-53).

**Regarding claim 5**, Ludwig et al. discloses a method, wherein the communication system ("packet exchange network" recited in column 9, lines 15-17) is a cellular communication system ("cellular telephone" recited in column 9, lines 13-14) and the link is a wireless link ("radio transmission", recited in column 9, lines 8-12).

**Regarding claim 6**, Ludwig et al. discloses a method wherein the window size ("employing window size", recited in column 7, lines 54-58) is for an initial window ("advertised window" recited in column 7-8, lines 55-57 and lines 1-3).

**Regarding claim 7**, Ludwig et al. discloses the method, wherein the sending party includes a proxy server ("a personal computer may be connected to a server over a LAN", recited in col. 11, lines 1-13), a radio network controller ("GSM component that controls the link layer", recited in col. 8, lines 49- col. 9, lines 3).

**Regarding claim 9**, Ludwig et al. discloses a method, wherein further comprising the steps of:

(a) receiving a congestion indication ("advertised window sent by the receiver", recited in column 2, lines 10-14) for the connection ("communication" recited in column 2, lines 3-5) before an acknowledgement for all packets ("acknowledgement packets", recited in column 2, lines 1-9) sent in an initial window ("advertised window size", recited in column 2, lines 45-49), or a restart window (advertised bottle neck window", recited in column 17, lines 27-38) is received, and selecting a smaller window size ("control window", recited in column 7-8 lines, 54-58 and 1-3).

**Regarding claim 10**, Ludwig et al. discloses a method, wherein the selected smaller window size ("minimum advertised", recited in column 16, lines 22-23) is about half of the window size used before unless the former window size was one ("one half of the control window" recited in column 6, lines 45-48).

**Regarding claim 11**, Ludwig discloses a method further comprising of detecting an increase in the determined estimation of pipe capacity ("monitor of link bandwidth" recited in column 11, lines 39-46 and lines 51-56, "determined bandwidth several during the sending of data such that they are updated", recited in col. 7, lines 42-47) of the connection ("access link", recited in column 11, lines 49-51), and selecting a new

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window size ("window value as the control window", recited in column 12, line 5-10) for the connection ("access link", recited in column 11, lines 49-51), wherein the new congestion window size ("control window" controlling flow from the sender and the receiver side, recited in column 11-12, line 1 and lines 1-5) is one of an initial window size ("advertising control window" recited in column 20 lines 13-18), that are used for connections ("link connection", recited in column 11, lines 35-38) with the same pipe capacity ("physical link bandwidth", recited in column 11, lines 51-54) or determined estimation of pipe capacity ("monitor of link bandwidth" recited in column 11, lines 39-46 and lines 51-56, "determined bandwidth several during the sending of data such that they are updated", recited in col. 7, lines 42-47).

**Regarding claim 14**, Ludwig et al. discloses method further comprising the steps of: monitoring for a predefined number of seconds ("monitoring RTT and time lapses", recited in column 20, lines 51-57) or number of connection set-ups or restarts that no congestion indication is received for a connection before an acknowledgement for all packets sent in an initial window ("advertised window size", recited in column 2, lines 45-49) a loss window, or a restart window is received ("measuring and updating of bottleneck window", recited in column 36-42) and selecting a larger window size ("adding bottleneck window", recited in column 9, lines 45-48) that is smaller than or equal to the upper threshold value ("link bandwidth", recited in column 29-33).

**Regarding claim 15**, Ludwig et al. discloses a method wherein the selected larger window size ("adding bottleneck window to existing windows", recited in column



9, lines 45-48) differs from the window size used before by a predefined constant number ("account of local information of link bandwidth"-which implies that new window will be different from previous one by fraction- recited in column 10, lines 6-11).

**Regarding claim 16**, Ludwig et al. discloses a method wherein the steps of receiving ("receiving partner", recited in column 17, lines 30-33) of the congestion indication ("minimizing congestion" recited in column 17, lines 10-14), the monitoring, and the selecting of the larger window size ("input buffer limit of advertised window", recited in column 17, lines 33-39) are performed separately for different destinations ("links consideration" recited in column 10, lines 15-19).

**Regarding claim 19**, Ludwig et al. discloses a window size selecting unit ("calculated and then employed it", recited in column 7, lines 48-53) for a communication system for ("packet exchange connection", recited in abstract, lines 1-5) connecting a sending party (Fig. 7, "sender 300") and a receiving party (Fig. 7, "receiver 302"), wherein the sending party is adapted to use a window based congestion control mechanism ("control window or congestion window", recited in column 7, lines 54-61) for avoiding or handling congestion on a communication path ("connection links", recited in column 7 lines 35-41), the window size ("window, acknowledgement message", recited in column 1-2, lines 58 and lines 1-12) defining the maximum number of data packets that may be sent by the sending party before an acknowledgement of the reception of a packet is received by the sending party, comprising:

(a) an input/output (Fig. 7, "sender 300") and a receiving party (Fig. 7, "receiver 302") unit for sending and receiving data ("connection partners" recited in column 11, lines 28)

(b) a processing unit ("control hardware", recited in column 12, lines 15-25) for controlling the other units ("partners in connection", recited in column 12, lines 16-17), comprising a selection unit ("chosen control window" recited in column 16, lines 19-24) for selecting a window size ("minimum advertised", recited in column 16, lines 22-23) above zero and below for a connection between the parties ("connection partners" recited in column 11, lines 28); wherein the upper threshold value is determined based on a determined estimation of pipe capacity (calculated from a bit rate of a link (fig. 8, "determine one or more values for the links in the connection", recited in col. 14, lines 22-31) belonging to the communication path (fig. 8, "connection links") and a estimated round trip time on a connection ("determined time value between the sender and the receiver known as RTT", recited in col. 14, lines 34-45) between the parties ("connection partners" recited in column 11, lines 28).

**Regarding claim 20**, Ludwig et al. discloses the window size selecting unit, ("a window size is calculated dependence on the bandwidth then is employed to in determining a control window", recited in col. 7, lines 48 – col. 8, lines 12), further comprising a comparing unit for comparing ("updated of bandwidth values such that the flow control is dynamically updated", recited in col. 7, lines 42-47) and determined of pipe capacities (fig. 8, "determined bandwidth value", recited in col. 16, lines 1-4, "bandwidth value associated with a link", recited in col. 11, lines 51-55).

**Regarding claim 22**, Ludwig et al. discloses a threshold value determining unit ("determined bandwidth values", recited in column 12, lines 26-34) comprising an input/output unit (Fig. 3, "sender/receiver"), a pipe capacity determining unit for determining a round trip time ("determined RTT / Fig. 8, St 3", recited in column 14, lines 32-45) of a connection and a bit rate of the connection (Fig. 8, St 4 "determination of bandwidth", recited in column 14, lines 22-32), and for determining the pipe capacity ("control window as the bottleneck window", recited in column 16, lines 1-6) of the connection from the round trip time and the bit rate ("bandwidth value of links" recited in column 8, lines 14-21), and a processing unit ("control hardware", recited in column 12, lines 15-25) for controlling the units ("partners in connection", recited in column 12, lines 16-17) and calculating an upper threshold value ("determining control window" recited in column 9, lines 41-44) for further use in a window size selecting unit ("adding bottleneck window to known windows then selecting the control window", recited in column 9, lines 36-48).

Ludwig et al. discloses all the claimed limitation with the exception of being silent with regard to the following claimed features: **regarding claim 1**, storing the selected window size together with an indication of the determined estimation of the pipe capacity; **regarding claim 2**, wherein the step of storing the selected window size together with an indication of the determined estimation of pipe capacity, comprises storing a predefined range of pipe capacities comprising the determined estimation of pipe capacity; **regarding claim 19**, a storage for storing a selected window size together with information about the determined estimation of pipe capacity; regarding

**claim 20**, the stored pipe capacities **regarding claim 22**, a storage area for storing a selected window size together with an information about the determined estimation of the pipe capacity.

Chou et al. from the same field of endeavor discloses the above claimed features: **regarding claim 1**, storing the selected window size ("smoothed congestion window", recited in paragraph 0040, lines5-17) together with an indication of the determined estimation (fig. 3A, "TCP Layer 340 stores the estimated transmission rate in the TCP Control block 342", recited in paragraph 0040, lines 5-28) of the pipe capacity ("the service module estimates the available transmission rate of the down link channel", recited in paragraph 0028, lines 8-13); **regarding claim 2**, wherein the step of storing the selected window size ("smoothed congestion window", recited in paragraph 0040, lines5-17) together with an indication (fig. 3A, "TCP Layer 340 stores the estimated transmission rate in the TCP Control block 342", recited in paragraph 0040, lines 5-28) of the determined estimation of pipe capacity ("stores parameter for estimating the available channel transmission rate", recited in paragraph 0040, lines 1-5), comprises storing a predefined range of pipe capacities ("estimated transmission rate that is stored in TCP Control Block", recited in paragraph 0041, lines 23-26) comprising the determined estimation of pipe capacity ("stores parameter for estimating the available channel transmission rate", recited in paragraph 0040, lines 1-5); **regarding claim 19**, a storage for storing a selected window size ("smoothed congestion window", recited in paragraph 0040, lines5-17) together with information (fig. 3A, "TCP Layer 340 stores the estimated transmission rate in the TCP Control

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block 342", recited in paragraph 0040, lines 5-28) about the determined estimation of pipe capacity ("the service module estimates the available transmission rate of the down link channel", recited in paragraph 0028, lines 8-13); **regarding claim 20**, the stored pipe capacities (fig. 3A, "TCP Layer 340 stores the estimated transmission rate in the TCP Control block 342", recited in paragraph 0040, lines 5-28); **regarding claim 22**, a storage area (fig. 3, TCP Control Bloc 342) for storing a selected window size ("smoothed congestion window", recited in paragraph 0040, lines 5-17) together with an information (fig. 3A, "TCP Layer 340 stores the estimated transmission rate in the TCP Control block 342", recited in paragraph 0040, lines 5-28) about the determined estimation of the pipe capacity ("stores parameter for estimating the available channel transmission rate", recited in paragraph 0040, lines 1-5, "the service module estimates the available transmission rate of the down link channel", recited in paragraph 0028, lines 8-13). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the features of Ludwig et al. by using features as taught by Chou et al. in order to provide flow control according the estimated available transmission rate of the channel (see paragraph

6. **Claims 17-18** are rejected under 35 U.S.C. 103(a) as being unpatentable over Ludwig et al (EP 0948168 A1) in view of Chou et al (US 2003/0018796 A1) in view of Blanco et al (US 6,249, 530 B1).

Ludwig and Chou et al. discloses all the claimed limitation with the exception of being silent with respect to the claimed features: **regarding claim 17**, wherein the

selected window size is used for a further connection with the same determined estimation of pipe capacity or with a pipe capacity within the same predefined range of pipe capacities, that is set-up or restarted; **regarding claim 18**, wherein the selected window size is used for a further connection with the same destination and the same pipe capacity or with a pipe capacity within the same predefined range of pipe capacities, that is set-up or restarted

However, Blanco in the same field of endeavor discloses the above claimed features: **regarding claim 17**, wherein the selected window size (fig. 8, S3 and S4 "compute and setting window size", recited in column 8, lines 28-36) is used for a further connection (fig. 1, "plurality of stations 10", recited in column 10, lines 7-11) with the same pipe capacity ("bandwidth communication flow" recited in column 8, lines 40-46) or with a pipe capacity within the same predefined range of pipe capacities ("bandwidth flow", recited in column 7, lines 52-56), that is set-up, **regarding claim 18**, a method wherein the selected window size (fig. 8, S3 and S4 "compute and setting window size", recited in column 8, lines 28-36) is used for a further connection (fig. 1, "plurality of stations 10", recited in column 10, lines 7-11) with the same destination ("bandwidth for destination buffer", recited in column 8, lines 44-51) and the same pipe capacity ("bandwidth communication flow" recited in column 8, lines 40-46) or with a pipe capacity within the same predefined range of pipe capacities ("bandwidth flow", recited in column 7, lines 52-56, that is set-up). Therefore, it would have been to one of ordinary skill in the art at the time the invention was made to modify the features of Ludwig et al. with Chou et al. by using features as taught by Blanco in order to provide

flow control of the bandwidth by determining a window size (See Blanco, column 3, lines 13-27).

7. **Claims 3-4** are rejected under 35 U.S.C. 103(a) as being unpatentable over Ludwig et al (EP 0948168 A1) in view of Chou et al (US 2003/0018796A1) as applied to claim 1 above, and further view of Kamath et al (US 7,237,007).

**Regarding claim 3**, Ludwig et al. discloses the method ("determining control window", recited in column 7-8, lines 54-60/ "calculated window size", recited in column 7, lines 48-53) ; **regarding claim 4**, Ludwig et al. discloses the method (determining control window", recited in column 7-8, lines 54-60/ "calculated window size", recited in column 7, lines 48-53), wherein the communication system is a cellular communication system ("digital cellular phone system", recited in col. 9, lines 3-6).

Ludwig et al. is silent with regard to the claimed features: **regarding claim 4**, wherein the destination includes a local area, a routing area, a cell, a service area or an area served by a radio network controller, a mobile services switching center, a radio base station, or a serving general packet radio service support network.

Chou et al. discloses the above claimed features: **regarding claim 4**, wherein the destination (fig. 1B, Laptop with wireless Modem) includes a local area, a routing area, a cell (fig. 1B, see, Wireless Device 110), a service area or an area served by a radio network controller, a mobile services switching center (fig. 1b, Service Module 190), a radio base station (fig. 1B, Radio Base Station, recited in paragraph 0025), or a serving general packet radio service support network (fig. 1B, see, serving "SGSN 140",

recited in paragraph 0025). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the features of Ludwig et al. by using features as taught by Chou et al. in order to provide flow control according to the estimated available transmission rate of the channel.

Ludwig et al. and Chou et al. disclose all the claimed limitation with the exception of being silent with regard to the following claimed features: **regarding claim 3**, determining a destination of the connection, and wherein the selected window size is stored together with an identification of the destination.

Kamath et al. from the same field of endeavor discloses the above claimed features: determining a destination of the connection ("packet Id used by the base station to determine the proper order of packet to transmit next", recited in col. 2, lines 54-58) of the connection ("flow control connection", recited in column 8, lines 49-52), wherein the selected window size is stored (fig. 2, window size 214, recited in column 5, lines 32-38 or "buffer size" recited in column 2, lines 51-54) together with an identification of the destination ("packet ID" and fig.2 Data ID 220, recited in column 5, lines 31-36). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the features of Ludwig et al. with Chou et al. by using features as taught by Kamath et al. in order to provide flow control of data between the base station and the base station transceiver (See Col. 2, lines 36-44 for motivation).



8. **Claim 8** is rejected under 35 U.S.C. 103(a) as being unpatentable over Ludwig et al (EP 0948168 A1) in view of Chou et al (US 2003/0018796 A1) as applied to claim 1, and further view of Chapman et al (US 6,493,316 B1).

**Regarding claim 8**, Ludwig et al. discloses the method ("determining control window", recited in column 7-8, lines 54-60/ "calculated window size", recited in column 7, lines 48-53).

Ludwig et al. and Chou et al. disclose all the claimed limitation with the exception of being silent with regard to the following claimed features: wherein the upper threshold value is in range of plus or minus two packets around twice the determined estimation of pipe capacity or twice the higher value of the predefined range of pipe capacities comprising the determined estimation of pipe capacity of the connection of window is used for.

However, Chapman et al. in a similar field of endeavor discloses a method wherein the upper threshold value ("maximum permitted window bandwidth", recited in column 3, lines 29-33) is in range of plus or minus two packets ("vary between one packet" recited in column 4, lines 55-60) around twice the determined estimation of pipe capacity ("control module for determining if MIIN, and MAX-Window is invoked on the connection for transmitting a series of packets", recited in col. 3, lines 29-37, "maximum transmission rate", recited in column 4, lines 52-55) or twice the higher value of the predefined range of pipe capacities comprising the determined estimation of pipe capacity of the connection of window is used for. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to the features of

Ludwig et al. with Chou et al by using features as taught by Chapman in order to provide flow control of data packets according to the congestion window (See col. 65 – col. 3, lines 15 for motivation).

9. **Claims 12-13** are rejected under 35 U.S.C. 103(a) as being unpatentable over Ludwig et al (EP 0948168 A1) in view of Chou et al (US 2003/0018796 A1) as applied to claim 11 above, and further view of Aweya et al (US 6,990,070 B1).

Ludwig et al and Chou et al. disclose all the claimed limitation with the exception of being silent with regard to the claimed features: **regarding claim 12**, wherein the congestion window size for the connection is set to the selected window size value; **regarding claim 13**, wherein a slow start threshold value for the connection is set to the selected window size value.

Aweya et al from the same field of endeavor discloses the above claimed features: **regarding claim 12**, wherein the congestion window size ("transmitter adjusting size of congestion window" recited in column 5, lines 8-10) for the connection ("receiver engages transmitter", recited in column 4, lines 46-50) is set to the selected window size value ("advertised window indicated" recited in column 5, lines 10-16); **regarding claim 13**, wherein a slow start threshold value ("maximum volume of data", recited in column 4, lines 52-57) for the connection ("receiver engages transmitter", recited in column 4, lines 46-50) is set to the selected window size value ("receiver volume and advertised window", "siding the window as the congestion window", recited in column 4, lines 58-62). Therefore, it would have been obvious to one of ordinary skill

in the art at the time the invention was made to modify the features of Ludwig et al. with Chou et al. by using features as taught by Aweya et al in order to provide adjustment of the volume of data transmitted between the transmitter and the receiver (See, Col. 2, lines 51-62 for motivation). Additionally, one skilled in the art would be motivated to set the congestion window size for the connection to the selected window size in order prevent overflow of the receiver buffer.

10. **Claim 21** is rejected under 35 U.S.C. 103(a) as being unpatentable over Ludwig et al (EP 0948168 A1 in view of Chou et al (US 2003/0018796 A1) as applied to claim 20 above, and further view of Kamath et al (US 7,237,007 B2) .

**Regarding claim 21**, Ludwig et al. discloses the window size selecting unit, ("a window size is calculated dependence on the bandwidth then is employed to in determining a control window", recited in col. 7, lines 48 – col. 8, lines 12).

Ludwig et al. and Chou et al. disclose all the claimed limitation with the exception of being silent with regard to the claimed features: **regarding claim 21**, a destination determining unit for determining a destination of a connection, wherein the storage is adapted to store an identification of a destination together with the window size, and wherein the comparing unit is adapted to compare stored destinations and determined destinations.

However, Kamath et al. in the same field of endeavor discloses a comparing unit (fig. 3, Flow control Module 302, "comparison of data packets" recited in column 9, lines 31-41) as recited in claim 20, a destination unit for determining a destination ("packet ID

that is used by the base station to determine the proper order of data packet to transmit next", recited in column 2, lines 54-58) together with the window size (fig. 2, window size 214, recited in column 5, lines 32-38 or "buffer size" recited in column 2, lines 51-54), and the comparing unit (fig. 3, Flow control Module 302, "comparison of data packets" recited in column 9, lines 31-41) is adapted to compare stored destinations (fig. 2, ID 220 and 218, recited in column 5, lines 55-63) and determined destinations ("packet ID", recited in column 2, lines 54-58 as recited in claim 21. Therefore, it would have been obvious to one of ordinary skill at the time the invention was made to modify the features of Ludwig et al with Chou et al. by using features as taught by Kamath in order to provide flow control between a transceiver and a base station (see Kamath, column 2, lines 36-50).

### ***Conclusion***

11. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Ha et al (7,099,273 B2), and Ong et al (US 7,304,948 B1) are cited to show method and systems that are related to claimed invention.

12. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP

§ 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

13. Any inquiry concerning this communication or earlier communications from the examiner should be directed to CANDAL ELPENORD whose telephone number is (571)270-3123. The examiner can normally be reached on Monday through Friday 7:30AM to 5:00PM EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kwang Bin Yao can be reached on (571) 272-3182. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 2616

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Candal Elpenord/  
Examiner, Art Unit 2616

/Kwang B. Yao/  
Supervisory Patent Examiner, Art Unit 2616